



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,858	09/04/2003	Kenneth Roger Jones	1033-SS00406	4667
60533	7590	04/06/2007	EXAMINER	
TOLER SCHAFFER, LLP			JAE, CHARLES J	
8500 BLUFFSTONE COVE			ART UNIT	PAPER NUMBER
SUITE A201				2109
AUSTIN, TX 78759				
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/654,858	JONES ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Charles J. Jae	2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 September 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-37 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04 November 2003
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

This Office Action is in response to the Application filed on 9/4/2003.

### ***Specification***

1. The disclosure is objected to because of the following informalities:

In paragraph [1001], on line 2, the blank space should be replaced with the proper US Patent number.

Appropriate correction is required.

### ***Claim Objections***

1. Claim 6 is objected to because of the following informalities:

In claim 6, on line 3, the term "the local area node" lacks proper antecedent basis, and should be changed to --a local area node-- in order to improve the clarity of the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 33-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 33-37 are directed to a method for collecting management information and differentiating between various types of network outages. This method represents a

series of abstract steps with no tangible output that would be appreciated by a user of the system. These claims are therefore non-statutory.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Iwasaki (US 6,421,319).

Claim 5 is drawn to a network management system comprising:

a data network report collector (6); and

a data router having a first interface coupled to a wide area network (4);

wherein data collected via the first interface includes management information regarding a service level of a first network for carrying data traffic between a local area network and the wide area network (the traffic monitoring apparatus [5] in Iwasaki's system configured to monitor traffic at the "T" point between the digital service unit [DSU (3)] and the routers [1] and the terminal adapters [2] in the subscriber system [column 2, lines 21-25]).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016).

In his disclosure, Iwasaki teaches a network management system connected between a subscriber system and a frame relay network. The management system uses a connection to a "T" point between the DSU (3) and the Terminal Adapter (2) to monitor network traffic and provide information to the Monitor (6), as required by claim 1. The management information is provided to the Monitor according to SNMP, in accordance with claim 3. Iwasaki's system monitors traffic at a point between the subscriber system and the frame relay network, which is an intermediate network between the two systems, as required by claim 4. The use of encapsulated data is inherent in any network system based upon the OSI reference model, which is standard in the art. Iwasaki does not teach the limitation of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42) as required by claims 1 and 2.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

7. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016).

Iwasaki meets all of the limitations of claims 6, 7 and 9 as described in claim 5 above, with the exception of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42), as required by claims 6 and 8. The use of encapsulated data is inherent in any network system based upon the OSI reference model, which is standard in the art.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the

equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

8. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016).

In his disclosure, Iwasaki teaches a network management system connected between a subscriber system and a frame relay network. The management system uses a connection to a "T" point between the DSU (3) and the Terminal Adapter (2) to monitor network traffic and provide information to the Monitor (6), as required by claim 11.

Iwasaki also discloses the practice of displaying the monitoring information (column 3, lines 56-57), in accordance with claims 12 and 13. Iwasaki's system monitors traffic at a point between the subscriber system and the frame relay network, which is an intermediate network between the two systems, as required by claim 15.

Iwasaki does not teach the limitation of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42), as required by claims 11 and 14.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the

equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

9. Claims 16-17 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016). In his disclosure, Iwasaki teaches a network management system connected between a subscriber system and a frame relay network. The management system uses a connection to a "T" point between the DSU (3) and the Terminal Adapter (2) to monitor network traffic and provide information to the Monitor (6), as required by claims 16, 21 and 24-25. The management information is provided to the Monitor according to SNMP, in accordance with claim 22. The use of encapsulated data is inherent in any network system based upon the OSI reference model, which is standard in the art. Iwasaki does not teach the limitation of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42), as required by claims 16-17 and 23. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the

equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

10. Claims 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016).

In his disclosure, Iwasaki teaches a network management system connected between a subscriber system and a frame relay network. The management system includes a traffic monitoring probe (5) with a connection to a "T" point between the DSU (3) and the Terminal Adapter (2) to monitor network traffic and provide information to the Monitor (6), as required by claims 26, 28, and 30-32. Iwasaki also discloses the practice of displaying the monitoring information (column 3, lines 56-57), in accordance with claim 29. The use of encapsulated data is inherent in any network system based upon the OSI reference model, which is standard in the art.

Iwasaki does not teach the limitation of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42), as required by claims 27 and 28.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the

equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

11. Claims 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) in view of Chea (US 6,453,016).

In his disclosure, Iwasaki teaches a network management system connected between a subscriber system and a frame relay network. The management system includes a traffic monitoring probe (5) with a connection to a "T" point between the DSU (3) and the Terminal Adapter (2) to monitor network traffic and provide information to the Monitor (6), as required by claims 33, and 35-37. The use of encapsulated data is inherent in any network system based upon the OSI reference model, which is standard in the art. Iwasaki does not teach the limitation of monitoring for equipment failure information as well as the traffic information.

The general concept of monitoring equipment fault status is well known in the art, however, as shown by Chea.

In his disclosure, Chea teaches a system for detecting and locating a faulting piece of equipment in a DSL network between a service provider's central office and the subscriber's location (column 3, lines 30-42), as required by claims 33 and 34.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the network monitor system of Iwasaki to include the use of the equipment fault detection taught by Chea as a way in which to improve both the efficiency and effectiveness of troubleshooting connection problems in a DSL network.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) and Chea (US 6,453,016) as applied to claims 6-9 above, and further in view of Shaheen (US 6,430,273).

Iwasaki and Chea teach all of the limitations of claim 10 as described above, with the exception of the use of a digital subscriber line access multiplexer (DSLAM) as the second node.

The general concept of using a DSLAM in a DSL network is well known, however, as shown by Shaheen.

In his disclosure, Shaheen shows the use of a DSLAM (19) as a part of the central office of a telecommunications company (13).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Iwasaki and Chea to include the use of a DSLAM as shown by Shaheen as a way in which to allow multiple subscribers to use the network concurrently.

13. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (US 6,421,319) and Chea (US 6,453,016) as applied to claims 11-17 above, and further in view of Shaheen (US 6,430,273).

Iwasaki and Chea teach all of the limitations of claims 18-20 as described above, with the exception of the use of a digital subscriber line access multiplexer (DSLAM) as the second node.

The general concept of using a DSLAM in a DSL network is well known, however, as shown by Shaheen.

In his disclosure, Shaheen shows the use of a DSLAM (19) as a part of the central office of a telecommunications company (13).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Iwasaki and Chea to include the use of a DSLAM as shown by Shaheen as a way in which to allow multiple subscribers to use the network concurrently.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles J. Jae whose telephone number is 571-270-1590. The examiner can normally be reached on Monday thru Friday, 7:30AM-5:00PM, Alt Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-270-1808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJJ  
03/28/2007

FRANTZ JULES  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "F. Jules".